

MEGATOUGH

OWNER'S MANUAL

**FOR TECHNICAL ASSISTANCE
CONTACT:**

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Game Description

The Pit Boss Megatouch comes housed in a 13" countertop cabinet, a 19" cabaret cabinet or a 19" upright cabinet.

The countertop and upright models have 3 key-locked compartments: the CPU section, the coin mech section and the coin box. The cabaret model has 4 key-locked sections: the CPU, coin mech & coin box sections, as well as a locked rear monitor door. The countertop is equipped with one coin mech and the cabaret model has two; optional bill acceptors are available for the cabaret.

CPU Section

The CPU section is accessible from the rear of the unit in the countertop and 19" upright versions. It houses the CRT, the monitor controls, the CPU (CRT-260), the power supply and the main harness. In the cabaret model, the CPU section is located at the bottom of the front side of the unit and contains only the CPU and power supply (monitor controls for the cabaret version are located in the coin mech section).

- The CRT-260 is the "brains" of the machine. Located on the board are the program option EPROMs, the DIP switch, the volume control dial and the Dallas security key.
- The main harness is used to connect the CPU board to the power supply, the CRT controls and the CRT monitor.

Coin Mech/Coin Box Section

13" Countertop

The coin mech/coin box section is accessible from the front of the unit. This section is key-locked for security purposes. A sturdy metal box, located within the coin mech section, holds all coins deposited into the machine. The coin box is separately key-locked for security.

Also located within the cavity of the coin mech are 2 internal switches, "SETUP" and "CALIBRATE," and the coin meter. Location of these switches can be seen in Figure 4. Pressing the "SETUP" button will bring you to the Megatouch Setup screen (see Figure 1). See the next section for calibration instructions.

19" Cabaret/19" Upright

The coin mech and coin box are accessible from the front of the cabinet. Both doors are key-locked for security purposes.

Also located within the cavity of the coin mech are 2 internal switches, "SETUP" and "CALIBRATE," and the coin meter. Location of these switches can be seen in Figures 6 and 9. Pressing the "SETUP" button will bring you to the Megatouch Setup screen (see Figure 1). See the next section for calibration instructions.

The monitor controls for the cabaret cabinet can be found "Velcroed" to the bottom of the cabinet in the coin mech section.

Screen Calibration

The machine must be in the idle mode or game select mode to calibrate the touchscreen.

- Find the "CALIBRATE" button located behind the coin mech and press it to enter the screen calibration mode.
- Touch the center of the first circle that appears on the screen. Once touched, a second circle will appear on the screen.

NOTE: YOU MUST HOLD YOUR FINGER ON THE CIRCLE FOR APPROXIMATELY 2 SECONDS FOR THE CALIBRATION TO BE RECOGNIZED.

- Touch the center of the second circle that appears on the screen.
- Once the second circle is touched, a crosshair will appear on the screen. To test the calibration of the screen, touch the crosshair with your finger and slowly drag your finger around the

screen. The crosshair should follow your movement.

- Touch the "EXIT TEST" icon.

NOTE: On upright models, if you open the monitor door while the machine is on, you will have to recalibrate the touchscreen.

Degaussing your Monitor

If your monitor is displaying "purity problems," (a display with purity problems will have parts of an all-white screen affected by blotches of color) the monitor needs to be degaussed using a "degaussing coil." A degaussing coil is a circular electromagnet, used to cancel out any stray magnetic fields that may build up on a metal object.

All of our monitors have built-in degaussing coils that are automatically activated on power-up. If your game is experiencing minor purity problems, try powering down the game for 5 minutes and then reapplying power to activate the degaussing coil. If the problem is not corrected, you will have to use a manual degaussing coil.

Follow the instructions below for degaussing a monitor.

1. Plug in your degaussing coil.
2. Hold the coil about three feet from the monitor, press the trigger to activate the magnetic field (for circular-shaped coils, orient the coil so you see the monitor through the hole in the middle; for wand-shaped coils, point the wand towards the screen).
3. Move the coil in a circular motion around the face of the monitor and slowly approach the game.
4. Continuing to move the coil in a circular motion, slowly back away from the monitor.
- 5a. **CIRCULAR-SHAPED COILS:** When you are about three feet away, quickly turn the coil perpendicular to the monitor and release the trigger.

- 5b. **WAND-SHAPED COILS:** When you are about three feet away, point the wand away from the monitor and release the trigger.

Monitor Colors Adjustment Procedure

For adjusting the colors on any of our monitor types, we suggest following the procedures described below.

For all monitor types, the visual cues used to adjust the monitors are white cards and gray boxes (e.g. the speed bonus box); you will adjust the monitor controls until the cards are white and the boxes are gray.

Eygo Monitors

1. Disconnect the signal connector from the CPU board.
2. Turn the brightness on the monitor control panel to its highest setting.
3. Turn down the brightness control on the flyback until there is a very low level of brightness on the screen.
4. Adjust the RGB controls (on the neck board) until the screen color is a light gray (you may need to adjust the control panel brightness to keep the brightness level down, BUT DO NOT ADJUST THE BRIGHTNESS ON THE FLYBACK).
5. Once you have achieved a light gray screen, reattach the signal input and set the game to the RUN 21 game screen.
6. Using the RGB controls (on the neck board), adjust the colors until the playing cards look white and the speed bonus box is gray. To check against a larger gray area, start a game and touch the "Collect Win" icon to bring up the point total box.
7. To fine tune the colors, use the RGB controls located on the CPU board.

Ducksan Monitors

1. Set the game to the Run 21 hi-score screen.

2. Reduce the brightness from the monitor control panel and adjust the RGB CUTOFF controls (as needed) until the background is black.
3. Enter the Run 21 game screen. Reduce the brightness and adjust the RB DRIVE controls until the speed bonus box is light gray and the cards are white (there is no Green DRIVE control, so adjust the Green CUTOFF control if there is too much, or too little, green).

Wells-Gardner, Telco and TUV Eygo Monitors

1. Set the game to the Run 21 hi-score screen.
2. Reduce the brightness from the monitor control panel and adjust the RGB CUTOFF controls (as needed) until the background is black.
3. Enter the Run 21 game screen and adjust the RGB DRIVE controls until the playing cards are white and the speed bonus box is gray.

Maintenance

Cleaning the Cabinet

- The cabinet should be cleaned with a damp cloth and mild detergent.

Cleaning the Touchscreen Monitor

- The touchscreen monitor should be cleaned with a damp cloth and mild detergent.

To gain access to the entire surface of the monitor screen on the upright model, you will have to release the monitor door latches. To do so, open the coin mech door. Located inside, above and to the right and left of the coin mech, are two monitor door latches. Unsnap the monitor door latches and lift the door upwards. See Figure 9.

To gain access to the entire surface of the monitor screen on the cabaret model, you will have to release the monitor door latches. To do so, open the coin mech door. Located inside, above and to the right and left of the coin mech, are two monitor door slide-latches. Loosen the thumb nuts securing the latch and slide the latch open. Pull up on the bottom

of the bezel to remove it (NOTE: TO FULLY REMOVE THE BEZEL, YOU MUST DISCONNECT THE GROUND BRAID). See Figure 6.

To gain access to the entire surface of the monitor screen on the countertop model, you will have to remove the top of the machine. To remove the top of the machine, unlock and open the rear door. Locate the thumb nuts holding the lock brackets on each side of the monitor shelf. Unscrew and remove the thumb nuts and push the top forward. Pull upwards on the top to remove it from the machine. See Figure 5 for lock bracket locations.

NOTE: DO NOT USE ANY ABRASIVE SOLVENTS, ACID OR VINEGAR-BASED CLEANSERS ON THE MONITOR. SUCH CLEANSERS COULD HARM THE TOUCHSCREEN OVER TIME. BE CAREFUL NOT TO USE COMMERCIAL CLEANERS CONTAINING ANY OF THESE SUBSTANCES.

Troubleshooting

Security Key Error Messages

"KEY NOT VALID" message means the security key is missing

"KEY QUESTION SET ERROR" message means the security key does not match the chip set.

Coin Jam

The game also has coin jam and stringing detection software. Should a coin become jammed in the mech or someone tries to string the mech, a continuous tone will be emitted by the game. To clear the coin jam indicator sound, the game must be powered down and back up.

If the game emits the coin jam indicator sound when powered up, this may indicate that the NORMALLY CLOSED contacts of the coin mechanism are being used. The NORMALLY OPEN contacts must be used.

DIP Switch Settings

Standard Program Settings

The game contains one DIP switch. The DIP switch comes factory set. It determines which size monitor is being used, number of Trivia rounds, whether the answer is displayed in Trivia, whether the machine displays "quarters" or "credits" and also controls video sync adjustment. These settings should not need to be changed.

DIP SWITCH		
	OFF	ON
Position 1	13" Touchscreen	19" Touchscreen
Position 2	Quarters	Credits
Position 3	4 round Trivia Whiz*	5 round Trivia Whiz
Position 4	Trivia Whiz Answer not Displayed	Trivia Whiz Answer Displayed
Positions 5 & 6	Horizontal Adjustment‡	Horizontal Adjustment‡
Positions 7 & 8	Vertical Adjustment‡	Vertical Adjustment‡

*300,000 points for bonus round

‡This adjusts the vertical and horizontal alignment of the picture. It is not an adjustment for touchscreen calibration.

To adjust vertical and horizontal control:

- Press "TEST SCREEN" on the "Megatouch Setup" screen.
- A crosshair will appear on the screen. Change the DIP switch settings until the horizontal and vertical lines of the crosshair meet in the middle.

Custom Program Versions

Some of the options or features in the standard game may not be offered in certain jurisdictions. Depending upon the program version being used, the settings may differ slightly.

PROGRAM #	PROGRAM VERSION	PROGRAM DIFFERENCES
9255-40-01	STANDARD VERSION	INCLUDES ALL OPTIONS NO RESTRICTIONS
9255-40-02	MINNESOTA VERSION	EXCLUDES CASINO GAMES
9255-40-06	CALIFORNIA VERSION	EXCLUDES POKER DOUBLE-UP FEATURE & NO FREE GAME IN SOLITAIRE
9255-40-07	NEW JERSEY VERSION	INCLUDES 2-COIN LIMIT WITH LOCKOUT COIL
9255-40-50	BI-LINGUAL ENG/GER	SAME AS STANDARD VERSION, WITHOUT WORD/CASINO GAMES
9255-40-57	INTER- NATIONAL	SAME AS STANDARD VERSION, WITHOUT WORD GAMES
9255-40-60	BI-LINGUAL ENG/FRE	SAME AS STANDARD VERSION, WITHOUT WORD/CASINO GAMES
9255-40-62	CROATIA	SAME AS STANDARD VERSION, WITH NO FREE CREDIT

To Enter This Screen, Press The "Setup" Button In The Coin Mech Section

MEGATOUCH SETUP				
MT IV SETUP	COIN-IN MENU	GAME MENU	DISPLAY BOOKS	TEST SCREEN
				CLEAR HI-SCORES
				FREE CREDIT
				3
				CLEAR CREDIT
				EXIT SETUP
	DEFAULT			
	☐ YES	NO	SOLITAIRE BUY-IN	
	☐ YES	NO	SEX TOPICS IN WORD GAMES	
	☐ ON	OFF	BONUS GAME IN SOLITAIRE	
☐ 2	3	ROUNDS IN TRIVIA TWISTER		
☐ 3	4	BALLS IN BREAKIN BRICKS		
☐ NO	YES	THREE STARS ENABLED		
☐ NO	YES	PLAYER SELECTABLE LANGUAGE		
☐ NO	YES	LANGUAGE ENGLISH/OTHER		
9255-40-01 5-30-1996 12:00:00				

Figure 1 - Megatouch Setup Screen

Setup Screen Functions

Coin-In Menu:	Enters the coin/credit setup screen.
Game Menu:	Enters the game menu selection screen.
Display Books:	Enters the bookkeeping statistics screen.
Test Screen:	Enters the touchscreen calibration test.
Clear Hi- Scores:	Clears all game high scores.
Free Credit:	Adds credit without using coin switch. Free credits are listed separately in the books screen.
Clear Credit:	All credits on the machine are erased.
Exit Setup:	Return to the attract mode.

Three Stars Enabled

This feature allows the high scores to be cleared without opening the game. When the game is in attract mode and the screen is touched, the message "YOU'VE GOT THE TOUCH - DEPOSIT COINS NOW" will appear on the screen. If the "Three Stars Enabled" switch is set to "YES," a red, white and blue star will appear at the top of the screen in random order. Touch the stars in "Red-White-Blue" sequence to clear the high scores.

To Enter This Screen, Press "Game Menu" In The Setup Screen

1 SOLITAIRE .25	2 11-UP .25
3 RUN 21 .25	4 TRI-TOWERS .25
5 ROYAL FLASH .25	6 FOURPLAY .25
7 CONQUEST .25	8 MORE GAMES...

SOLITAIRE	HORSES	ROLL THE DICE	11-UP
RUN 21	ROYAL FLASH	PHRAZE CRAZE	TRI-TOWERS
TRIVIA WHIZ	TRIVIA TWISTER	MATCH'EM UP	
DRAW POKER	MEM-O-REE	FOURPLAY	
SUPER 7 STUD	BREAKIN BRICKS	CONQUEST	

DEFAULT	CLEAR ALL	CLEAR 1	FORMAT	MENU 2	EXIT
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Figure 2 - Game Menu Screen

The game list and prices are programmed using this screen. Up to fourteen games may be made available for the players to choose. The top of the screen shows the game positions available, with the price for each game. The lower section shows all games included in the program. The lower buttons will clear the entire menu, clear the selected menu item, format the game menu to eliminate blanks, display the Menu 2 Game Menu screen and exit the Game Menu screen.

To program the game menu, select the menu position you want the game to occupy, by touching that position. Then touch the game name from the game list on the lower portion of the screen. That game will now appear in the menu. To adjust the price, touch the price in the game menu. Each touch will rotate the price from 25c (1CR), to 50c (2CR), to 75c (3CR), to \$1 (4CR) and back to 25c (1CR). Touch "EXIT" when done.

Shaded games are not currently among the active games in the two Game Menu screens. To enable one of these games, it must replace one of the fourteen games in the active Game Menu screens.

To Enter This Screen, Press "Coin-In Menu" In The Setup Screen

COIN/CREDIT SETUP

COIN INPUT	COINS	=	CREDITS	&	METER PULSES
1E	1		1		1
2E	1		1		1
3E	1		1		1
4E	1		1		1
1M	1		1		1
2M	1		1		1

DEFAULT EXIT

Figure 3 - Coin-In Menu Screen

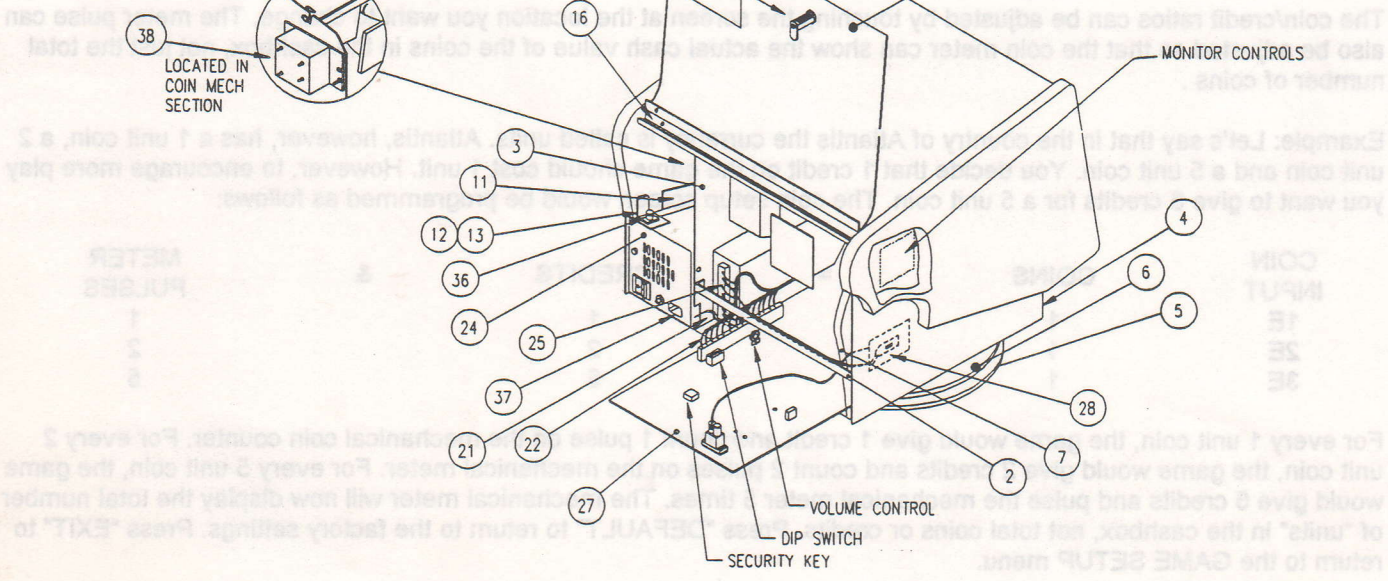
The coin/credit ratios of the game may be adjusted to meet any application. The CPU board supports up to six coin inputs: two mechanical mech inputs (1M and 2M) and four electronic mech inputs (1E, 2E, 3E and 4E). (Electronic coin mechs are typically used when more than one type of coin needs to be accepted. If you would like to convert your game from a mechanical mech to an electronic mech, please contact your distributor or Merit Technical Support for wiring details.)

The coin/credit ratios can be adjusted by touching the screen at the location you want to change. The meter pulse can also be adjusted so that the coin meter can show the actual cash value of the coins in the cashbox, not just the total number of coins.

Example: Let's say that in the country of Atlantis the currency is called units. Atlantis, however, has a 1 unit coin, a 2 unit coin and a 5 unit coin. You decide that 1 credit on the game should cost 1 unit. However, to encourage more play you want to give 6 credits for a 5 unit coin. The coin setup screen would be programmed as follows:

COIN INPUT	COINS	=	CREDITS	&	METER PULSES
1E	1		1		1
2E	1		2		2
3E	1		6		5

For every 1 unit coin, the game would give 1 credit and count 1 pulse on the mechanical coin counter. For every 2 unit coin, the game would give 2 credits and count 2 pulses on the mechanical meter. For every 5 unit coin, the game would give 6 credits and pulse the mechanical meter 5 times. The mechanical meter will now display the total number of "units" in the cashbox, not total coins or credits. Press "DEFAULT" to return to the factory settings. Press "EXIT" to return to the GAME SETUP menu.



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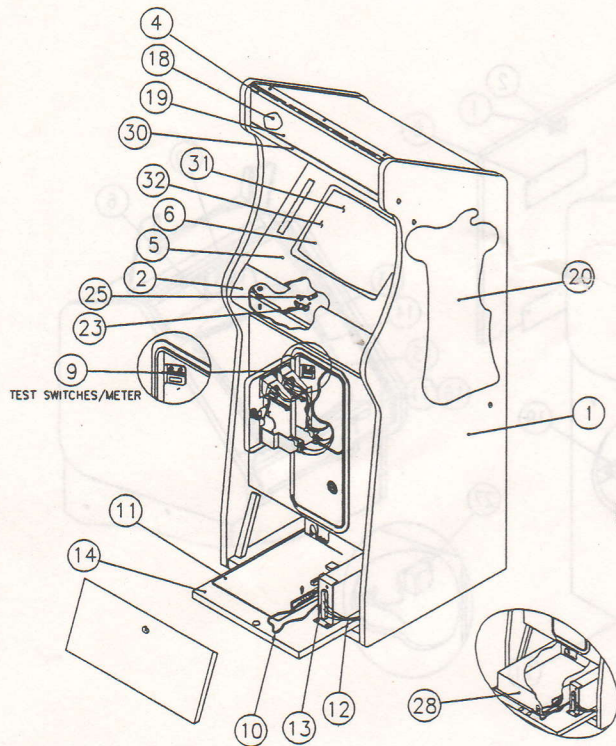


FIGURE 6 - 19" CABARET (FRONT VIEW)

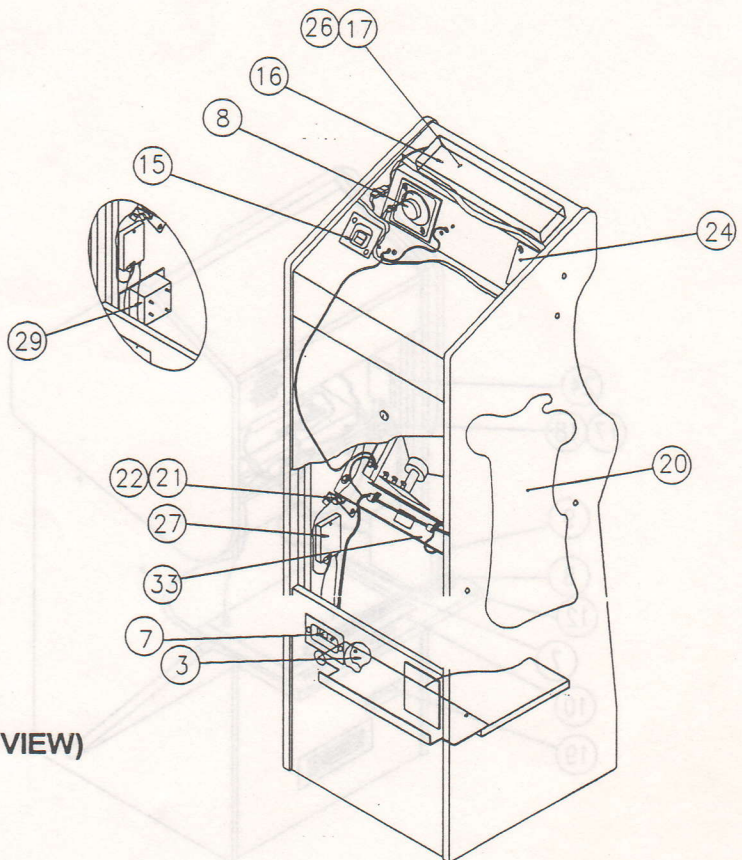


FIGURE 7 - 19" CABARET (REAR VIEW)

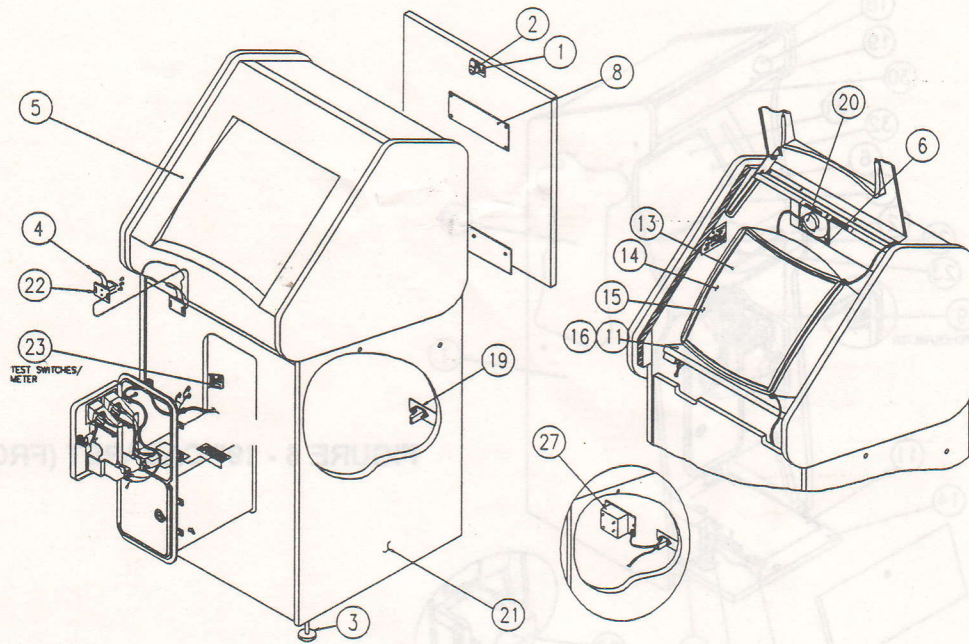


FIGURE 8 - 19" CABARET (FRONT VIEW)

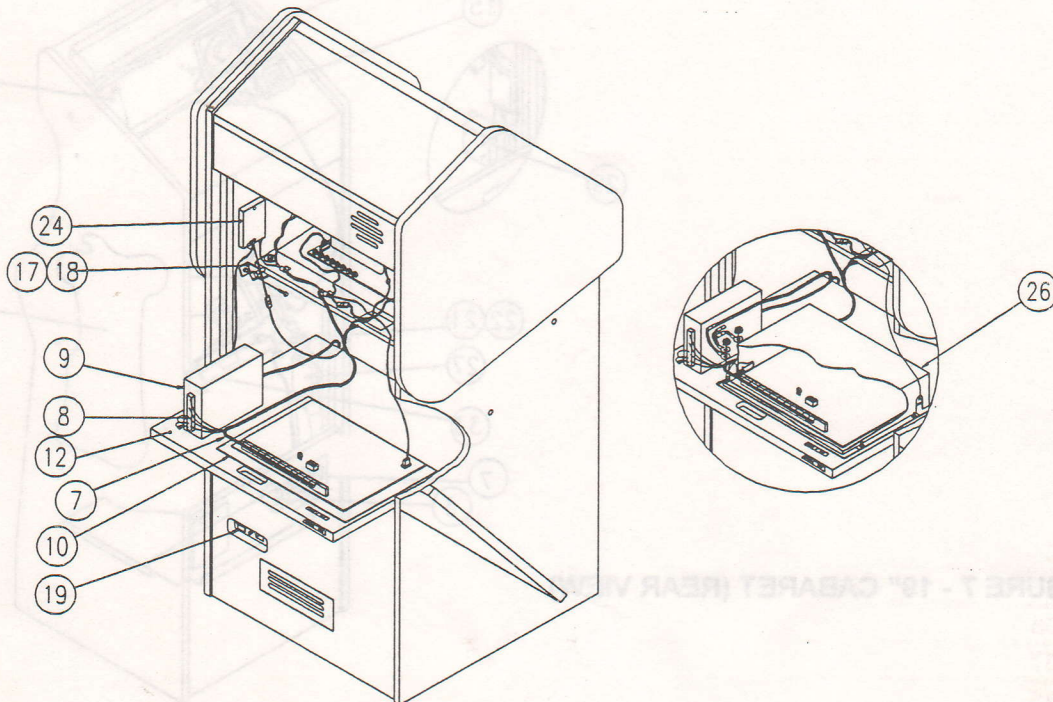


FIGURE 9 - 19" CABARET (FRONT VIEW)

MEGATOUCH IV PARTS LISTS

COUNTERTOP

REF #	QUANTITY	PART NO.	DESCRIPTION
X	1	EC2001	POWER CORD, 120V
X	1	EC2002	POWER CORD, 240V
X	2	GL3000-XX	DECAL, MEGATOUCH, (-01=RT;-02=LT)
X	1	SA7297-05	SIGN HOLDER, W/ADH, MEGATOUCH 4
1	1	MW5165-01	MONITOR FILLER PLATE
2	1	MW5167-01	LOCK BRACKET, REAR DOOR
3	2	MW5151-01	MONITOR SUPPORT
4	1	MW5150-01	MAIN CHASSIS
5	1	HW8003	RUBBER ANTI-SKID PAD
6	1	HW8958	LAZY SUSAN, 12" DIAMETER
7	1	HW9001	PLASTIC TUBING
8	1	SA5151-01	TOUCHSCREEN/CRT ASSEMBLY
9	1	EC9359	CRT, COLOR, 14" CGA, WITH FRAME
10	1	EC9824	TOUCHSCREEN OVERLAY
11	2	MW5155-01	LID, RETAINING BRACKET
12	1	MW5159-01	LID, LOCK BRACKET, RIGHT
13	1	MW5159-02	LID, LOCK BRACKET, LEFT
14	1	MW5161-01	REAR DOOR
16	1	MW5164-01	HINGE, REAR DOOR
17	1	HW8713	FLAT LOCK #564
18	1	WD5171-01	CABINET SIDE, RIGHT
19	1	WD5171-02	CABINET SIDE, LEFT
20	1	EC9154	COUNTER, 12V, FROG EYE MOUNTING
21	1	SA5123-01	AC POWER HARNESS
22	1	SA5131-01	MAIN HARNESS
23	1	HW8953	BEZEL, 13" T/S
24	1	SA4084	4" SPEAKER ASSEMBLY
25	1	EC7526	POWER SUPPLY, SW, 11 AMP
26	1	MW5156-01	RETAINING BRACKET, COIN BOX
27	1	TA10004-02	PCA, CPU, VID, 260 TESTED
28	1	EC9840	SMT-3 TOUCHSCREEN CONTROLLER
30	1	HW8741	CIRCULAR LOCK
31	1	SA5156-01	CONNECTOR COIN BOX ASSEMBLY
32	1	SA5156-01	CONNECTOR COIN BOX ASSEMBLY
33	1	SA5153-01	COIN BOX ASSEMBLY
34	1	HW8727	LOCK, COIN BOX
35	1	MW5153-01	LID, COIN BOX
36	2	HW4498	THUMB SCREWS, BRASS
37	1	SA5152-01	POWER ENTRY 120V
38	1	SB0004-01*	ASSY, MOV/ARRESTOR (*240V GAMES ONLY)

19" CABARET

REF#	QUANTITY	PART NO.	DESCRIPTION
X	1	EC2001	POWER CORD, 120V
X	1	EC2002	POWER CORD, 240V
1	1	WD5060-01	WOOD CABINET, URTS, 19" CABARET
2	1	MW1672-01	CONTROL PANEL, 19" CABARET
3	1	MW1673-01	COVER SCREEN, 19" CABARET
4	1	MW1671-01	BRKT, GLASS, UPPER, 19" CABARET
5	1	HW8951-01	BEZEL, MONITOR, 19" CABARET
6	1	SA3266-02	CRT ASSY, 19" CABARET
7	1	SA3263-01	POWER ENTRY, URTS, 120V
7	1	SA3270-01	POWER ENTRY, URTS, 240V
8	1	SA4084	SPEAKER ASSY, 4"
9	1	SA3209-01	BRKT ASSY, METER/TEST SW
10	1	SA3281-01	MAIN HARNESS, 19" CABARET
11	1	TA10004-02	PCA, CPU, VID, 260
12	1	SA3282-01	POWER HARNESS, 19" CABARET
13	1	EC7526	POWER SUPPLY, SW, 11 AMP
14	1	WD5052-01	PC SHELF, 13" CABARET
15	1	SA3264-01	SWITCH ASSY, URTS
16	1	SB1523-02	FLUORESCENT LAMP ASSY, 120V, 22"
17	1	EC6052-04	FLUOR, 15", 120V-60Hz, W/10" CABLE
18	1	GL2401-03	VINYL, MARQ, MEGATOUGH 19" CABARET
19	1	GL2411-03	PLEXI, CLR, 19" CABARET SIGN
20	2	GL2999-01	DECAL, MEGATOUGH, URTS, CABARET
21	1	MW1674-01	MONITOR SUPPORT, LEFT, 19" CAB
22	1	MW1674-02	MONITOR SUPPORT, RIGHT, 19" CAB
23	1	HW8979	SLIDE LATCH, DART MATRIX SW
24	1	HW1677-01	COVER, SPEAKER HOLE, 19" CABARET
25	1	HW6366	MOUNTING POST, KNURLED
26	1	LB2100	LAMP, FLUOR, 15: F15T8CW
27	1	EC9840	SMT-3 TOUCHSCREEN CONTROL MODULE
30	1	MW1670-01	SPEAKER, MTG BRKT, 19" CAB
31	1	EC9374	CRT, COLR, 20", CGA, DC COUPLED
32	1	EC9839	OVRLY, T/S 19" W/58" CABLE
33	1	WD5061-01	SHELF, MONITOR 19" CAB
28	1	MW0006-01*	COVER, PCA (*240V GAMES ONLY)
29	1	SB0004-01*	ASSY, MOVI/ARRESTOR (*240V GAMES ONLY)

19" UPRIGHT

REF#	QUANTITY	PART NO.	DESCRIPTION
X	1	EC2001	POWER CORD, 120V
X	1	EC2002	POWER CORD, 240V
1	1	HW8711	ANCHOR PLATE FOR CAM LOCK
2	1	HW8716	FLAT LOCK, #564
3	4	HW8960	LEG LEVELER
4	2	HW89974	CATCH SNAP TENSION LOCK
5	1	MW5007-01	BEZEL WITH HINGE
6	1	MW5006-01	SPEAKER COVER
7	1	SA3214-01	MAIN HARNESS
8	1	SA3216-01	AC POWER HARNESS
9	1	EC7526	SWITCHING POWER SUPPLY, 11 AMP
10	1	TA10004-02	PCA, CPU, VID, 260
11	1	SA3202-04	SHELF ASSEMBLY, TOUCHSCREEN/CRT, 120V
12	1	WD2014-01	PCB MOUNTING SHELF
13	1	SA3210-02	TOUCHSCREEN/CRT ASSEMBLY
14	1	EC9374	CRT, COLOR, 19" CGA
15	1	EC9823	TOUCHSCREEN OVERLAY, 19"
16	1	WD2013-01	CRT MOUNTING SHELF
17	1	MW5003-01	CRT ADJUST, BRACKET, LEFT
18	1	MW5003-02	CRT ADJUST, BRACKET, RIGHT
19	1	SA3206-01	POWER ENTRY, UR 19", T/S, 120V
19	1	SA3170-01	POWER ENTRY, UR 19", T/S, 240V
20	1	SA4084	SPEAKER ASSEMBLY
21	1	WD2012-01	CABINET, 19" UPRIGHT TOUCHSCREEN
22	2	MW5005-01	LATCH MOUNTING BRACKET
23	1	SA3209-01	METER/TEST SWITCH BRACKET ASSEMBLY
24	1	EC9840	SMT-3 TOUCHSCREEN CONTROL MODULE
25	1	MW0006-01*	COVER, PCA, 19" URTS/CAB (*240V GAMES ONLY)
26	1	SB0004-01*	ASSY, MOV/ARRESTOR (*240V GAMES ONLY)

Merit Video Countertop Limited Warranty

Merit Industries, Inc. warrants its video countertop and upright machines to be free from defects in material and workmanship for a period of six months from the date of delivery or seven months from the date of shipment from its facilities, whichever occurs first. The warranty covers all electrical components (except fuses and light bulbs) and printed circuit boards. Other items are covered by warranty periods offered by the original equipment manufacturers (power supplies - 90 days; video monitors - 90 days).

Failure due to misuse, vandalism, excessive or intentional abuse, operation outside specified conditions (including, but not limited to, improper electrical power source), fire, water damage, acts of God, acts of war and civil unrest are specifically excluded.

Merit products are carefully inspected and thoroughly tested prior to packing and shipment. Any damage discovered upon receipt of goods, whether obvious or concealed, must be reported immediately to the delivering carrier and claims made directly to them. Merit assumes no responsibility for damages once the product has left its facilities and any disputes regarding transportation damage must be resolved with the shipping company(s).

Merit will repair or replace, at its option, any component, part or assembly that fails under warranty, provided that the failed item is returned, shipping charges prepaid, to Merit's repair facility and Merit is notified of the failure within the warranty period. Merit reserves the right to request the serial numbers of the item and/or game which has failed, and copies of sales invoices, bills of lading or other documents as required to determine the validity of the warranty coverage. Merit will return or replace warranty items, as specified above, shipping charges prepaid, by ground transportation.

Merit's obligation shall be limited to repair or replacement as stated above, and shall specifically exclude any liability for consequential damages or loss of earnings.

Merit may, at its discretion, provide replacement parts under warranty prior to receiving defective items without incurring any ongoing obligation to extend such accommodations.

In certain instances, due to geographical or other considerations, Merit may offer PCB warranty service on an extended time basis as follows:

- (a) User notifies Merit in writing (or FAX) of PCB failure, providing dates of failure, serial numbers and a brief description of failure symptoms.
- (b) Failed PCBs are accumulated for a time period or quantity accumulation, as designated by Merit and sent in one shipment to save shipping expenses.
- (c) Merit honors warranty as per dates of failure notification.

The above terms and conditions constitute the sole obligation, written or implied, of Merit Industries under its warranty coverage.

PROPRIETARY

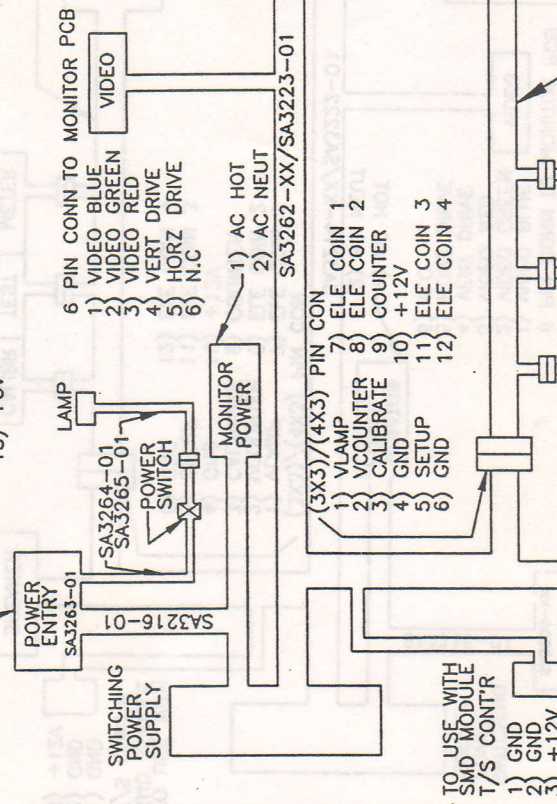
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FCC WARNING

THIS EQUIPMENT COMPLIES WITH THE REQUIREMENTS IN PART 15 OF FCC RULES FOR A CLASS "A" COMPUTING DEVICE. OPERATION IN A RESIDENTIAL AREA MAY CAUSE INTERFERENCE TO RADIO AND TV RECEPTION REQUIRING THE OPERATOR TO TAKE WHATEVER STEPS ARE NECESSARY TO CORRECT THE INTERFERENCE.

- J4) 1x15 FEM HEADER FOR VBB, CRT252 (OPTIONAL) FROM TTL CONTROLLER
- 1) GND
 - 2) D1
 - 3) D2
 - 4) A0
 - 5) A1
 - 6) A2
 - 7) A3
 - 8) D3
 - 9) D4
 - 10) D5
 - 11) D6
 - 12) D7
 - 13) D0
 - 14) +5V
- J6) 2X7 PIN RBN CABLE: NOVRAM CLK 8/DRV
- 1) NOVRAM CLK 8/DRV
 - 2) NOVRAM CE 9/UR
 - 3) NOVRAM DATA 10/LR
 - 4) +5V
 - 5) GND
 - 6) CH GND
 - 7) N.C
- J5) TOUCH SCREEN CABLE. RS-232C, D-SUB WITH SMD MODULE (OPTIONAL)
- 1) N.C
 - 2) RXD
 - 3) TXD
 - 4) N.C
 - 5) GND
 - 6) N.C
 - 7) /RQ2SD
 - 8) /CL2SD
 - 9) N.C
- J7) TOUCH SCREEN CABLE. WITH TTL CONTROLLER
- 1) NOVRAM CLK
 - 2) NOVRAM CE
 - 3) NOVRAM DATA
 - 4) +5V
 - 5) GND
 - 6) CH GND
 - 7) N.C
 - 8) DRV
 - 9) UR
 - 10) LR
 - 11) UL
 - 12) LL

"CRT260-REV A"
CPU BOARD
SA10004/TA10004



- COIN MECH/BILL ACC OPTIONS
- 1) SA3205-01; HARN MECH COIN REJECTOR
 - 2) SA3215-01; HARN MARS BILL ACCEPTOR
 - 3) SA3217-01; HARN JCM BILL ACCEPTOR
 - 4) SA3222-01; HARN ELEC COIN REJECTOR.

-01	AS SHOWN
DASH NO.	DESCRIPTION

TABLE 1

B.O.M. REV LETTER CONTROLS DOCUMENT		DFTSMN	TOM JOHNSON	DATE	5/31/95
UNLESS OTHERWISE SPECIFIED TOLERANCES ON:		CHKR			
2. PLG DIMS - ± .XX ANGLES - ± 1°					
3. PLG DIMS - ± .XXX FRACTIONS - ± 1/32					
MATERIAL: (ROUND BARS & BRGK SHAP EDCS)					
THIS ITEM AND/OR THE INFORMATION CONTAINED HEREIN IS AND REMAINS THE SOLE PROPERTY OF AND IS PROPRIETARY TO, MERIT INDUSTRIES (MI). THIS ITEM AND/OR INFORMATION SHALL BE KEPT CONFIDENTIAL AND MAY NOT BE REPRODUCED, COPIED, MODIFIED, DISCLOSED, TRANSFERRED OR MADE AVAILABLE TO OTHERS, EXCEPT WITH THE PRIOR WRITTEN CONSENT OF MI. THIS ITEM AND/OR ALL COPIES, IF ANY, ARE SUBJECT TO RETURN TO MI.		APPRD	Tom Johnson	DATE	5/31/95
ENGINEERING RELEASE		TOMJ		DATE	5/31/95
DESCRIPTION - FOR DETAILS SEE ECO		DFT		CHK	
REVISIONS					
ZONE	ECO #	ECO #	ECO #	ECO #	ECO #
0	---	---	---	---	---

merit industries, inc.

INTERCONNECT
URTS CABARET

SIZE	A	DRAWING/PART NO.	SD0998	REV LEVEL	0
SCALE	1 = 1	E/D/F	-	SHEET	1 OF 1

DO NOT SCALE THIS PRINT

J4) 1x15 FEM HEADER FOR VBB,CRT252 (OPTIONAL)
 1) GND 8) D1
 2) GND 9) D2
 3) A0 10) D3
 4) A1 11) D4
 5) A2 12) D5
 6) A3 13) D6
 7) D0 14) D7
 15) +5V

6 PIN CONN TO MONITOR PCB
 1) VIDEO BLUE
 2) VIDEO GREEN
 3) VIDEO RED
 4) VERT DRIVE
 5) HORIZ DRIVE
 6) N.C

1) AC HOT
 2) AC NEUT

SA3214-XX/SA3222-01

(3X3)/(4X3) PIN CON
 1) VLAMP
 2) VCOUNT
 3) CALIBRATE
 4) GND
 5) SETUP
 6) GND

7) ELE COIN 1
 8) ELE COIN 2
 9) COUNTER
 10) +12V
 11) ELE COIN 3
 12) ELE COIN 4

MONITOR POWER
 SA3216-01

SWITCHING POWER SUPPLY
 SA3206-XX

VIDEO
 VIDEO DRIVE

TO USE WITH SMD MODULE T/S CONTR
 1) GND
 2) GND
 3) +12V

SPEAKER

CALIBR SWITCH
 TEST SWITCH
 METER
 SA3209-01

J5) TOUCH SCREEN CABLE. RS-232C, D-SUB WITH SMD MODULE (OPTIONAL)
 1) N.C
 2) RXD
 3) TXD
 4) N.C
 5) GND
 6) N.C
 7) /RQ2SD
 8) /CL2SD
 9) N.C

J7) TOUCH SCREEN CABLE. WITH TTL CONTROLLER
 1) NOVAM CLK
 2) NOVAM CE
 3) NOVAM DATA
 4) +5V
 5) GND
 6) CH GND
 7) N.C
 8) DRV
 9) UR
 10) LR
 11) UL
 12) LL

28) I/O B1
 29) I/O B0
 30) DRIVE 8
 31) LMP7DR
 32) LMP5DR
 33) VMETER
 34) VMETER
 35) HP OUT
 36) HP OUT
 37) HP OUT
 38) GND
 39) N.C
 40) N.C
 41) N.C
 42) N.C
 43) N.C
 44) N.C
 45) N.C
 46) N.C

47) LP I/O
 48) LP I/O
 49) LP I/O
 50) LP I/O
 51) SW GND
 52) COIN GND
 53) LP I/O
 54) CALIBRA SW
 55) SETUP SW
 56) MEC COIN 2
 57) MEC COIN 1
 58) LP I/O
 59) LP I/O
 60) LP I/O
 61) LP I/O
 62) ELE COIN 4
 63) ELE COIN 3
 64) ELE COIN 2
 65) ELE COIN 1

- COIN MECH/BILL ACC OPTIONS
- 1) SA3205-01; HARN MECH COIN REJECTOR
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"CRT260-REV A"
 CPU BOARD
 SA10004/TA10004

merit industries, inc.		DATE 5/31/95	DFTSMN TOM JOHNSON	REV LVL 0
TITLE INTERCONNECT 19" URTS		CHKR ENG Tom Johnson	APPRD Tom Hack	SIZE A
DRAWING/PART NO. SD0999		SCALE 1=1 E/D/F		SHEET 1 OF 1

B.O.M. REV LETTER CONTROLS DOCUMENT			
UNLESS OTHERWISE SPECIFIED TOLERANCES ON:			
2	PLG DIMS	- ± .XX	ANGLES - ± 1°
3	PLG DIMS	- ± .XXX	FRACTIONS - ± 1/32
MATERIAL: (REMOVE BARRS & BRICK SHAP DIMS)			
material			
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TABLE 1			
-01	AS SHOWN		
DASH NO.	DESCRIPTION	DATE	APPRD
		5/31/95	

ZONE	ECO #	DESCRIPTION - FOR DETAILS SEE ECO	DFT	CHK	DATE	APPRD
-	0	ENGINEERING RELEASE			5/31/95	
REVISIONS						

DO NOT SCALE THIS PRINT

